

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Havenga et al.

Serial No.: To be assigned

Filed: August 22, 2003

For: GENE DELIVERY VECTORS
PROVIDED WITH A TISSUE TROPISM
FOR DENDRITIC CELLS AND METHODS
OF USE

Examiner (presumed): M. Marvich, Ph.D.

Group Art Unit (presumed): 1636

Attorney Docket No.: 2578-4489.1US

CERTIFICATE OF MAILING

I hereby certify that this correspondence along with any attachments referred to or identified as being attached or enclosed is being deposited with the United States Postal Service as First Class Mail on the date of deposit shown below with sufficient postage and in an envelope addressed to the Commissioner for Patents, Washington, D.C. 20231.

August 22, 2003
Date

Signature

Betty Vowles
Name (Type/Print)

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
Washington, D.C. 20231

Sir:

In compliance with the duty to disclose information material to patentability pursuant to 37 C.F.R. § 1.56, it is respectfully requested that this Information Disclosure Statement be entered and the documents listed on attached Form PTO/SB/08A be considered by the Examiner and made of record. Copies of the listed documents are enclosed pursuant to 37 C.F.R. § 1.98(a).

In accordance with 37 C.F.R. § 1.97(g) and (h), filing of this Information Disclosure Statement is not to be construed as a representation that a search has been made or an admission that the information cited herein is, or is considered to be, material to patentability as defined in 37 C.F.R. § 1.56(b). Further, no representation is made by Applicants herein that no other possible material information as defined in 37 C.F.R. § 1.56(b) exists.

U.S. Patent Documents

<u>U.S. Patent No.</u>	<u>Publication Date</u>	<u>Patentee</u>
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US- 4,517,686 #	05/21/1985	Ruoslahti et al.
US- 4,578,079 #	03/25/1986	Ruoslahti et al.
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US- 4,797,368 #	01/10/1989	Carter et al.
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US- 5,534,423 #	07/09/1996	Palsson et al.
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<u>U.S. Patent No.</u>	<u>Publication Date</u>	<u>Patentee</u>
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<u>Document No.</u>	<u>Publication Date</u>	<u>Patentee</u>
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WO 93/07283 #	04/15/1993	PCT
WO 94/08026 #	04/14/1994	PCT
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<u>Document No.</u>	<u>Publication Date</u>	<u>Patentee</u>
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WO 94/17832 #	08/14/1994	PCT
WO 94/24299 #	10/27/1994	PCT
WO 94/26915 #	11/24/1994	PCT
WO 95/05201 #	02/23/1995	PCT
WO 95/06745 #	03/09/1995	PCT
WO 95/14785 #	06/01/1995	PCT
WO 95/16037 #	06/15/1995	PCT
WO 95/21259 #	08/10/1995	PCT
WO 95/26412 #	10/05/1995	PCT
WO 95/27071 #	10/12/1995	PCT
WO 95/31187 #	11/23/1995	PCT
WO 95/31566 #	11/23/1995	PCT
WO 96/00790 #	01/11/1996	PCT
WO 96/07739 #	03/14/1996	PCT
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WO 96/13597 #	05/09/1996	PCT
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Foreign Patent Documents

<u>Document No.</u>	<u>Publication Date</u>	<u>Patentee</u>
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#Pursuant to 37 C.F.R. § 1.98(d), copies of the previously identified patents are not being provided since they were previously cited by or submitted to the Office in the following prior application:

Serial No.: 09/348,354
Filed: July 7, 1999
For: CHIMAERIC ADENOVIRUSES

and Serial No.: 09/665,472
File September 20, 2000
For: GENE DELIVERY VEHICLES PROVIDED WITH A TISSUE TROPISM FOR DENDRITIC CELLS.

In compliance with the duty to disclose information material to patentability pursuant to 37 C.F.R. § 1.56 & 1.175, Applicants offer hereby identifies the following listed copending applications naming the same inventor(s):

Attorney Docket No.: 2578-3840US
Serial No.: 09/065,752
Filing Date: 4/24/1998
Title: PACKAGING SYSTEMS FOR HUMAN RECOMBINANT
ADENOVIRUS TO BE USED IN GENE THERAPY

Attorney Docket No.: 2578-4230US
Serial No.: 09/214,836
Filing Date: 10/4/1999
Title: MELANOMA ASSOCIATED PEPTIDE ANALOGUES AND
VACCINES AGAINST MELANOMA

Attorney Docket No.: 2578-4075US
Serial No.: 09/332,803
Filing Date: 6/14/1999
Title: PACKAGING SYSTEMS FOR HUMAN RECOMBINANT
ADENOVIRUS TO BE USED IN GENE THERAPY

Attorney Docket No.: 2578-4123.2US
Serial No.: 09/348,354
Filing Date: 7/7/1999
Title: CHIMAERIC ADENOVIRUSES

Attorney Docket No.: 2578-4489.1US

Attorney Docket No.: 2578-4231US
Serial No.: 09/444,284
Filing Date: 11/19/1999
Title: GENE DELIVERY VECTORS PROVIDED WITH A TISSUE
TROPISM FOR SMOOTH MUSCLE CELLS, AND/OR
ENDOTHELIAL CELLS

Attorney Docket No.: 2578-3982.2US
Serial No.: 09/517,898
Filing Date: 3/3/2000
Title: MEANS AND METHODS FOR FIBROBLAST-LIKE OR
MACROPHAGE-LIKE CELL TRANSDUCTION

Attorney Docket No.: 2578-4038.1US
Serial No.: 09/549,463
Filing Date: 4/14/2000
Title: RECOMBINANT PROTEIN PRODUCTION IN A HUMAN CELL

Attorney Docket No.: 2578-4070.1US
Serial No.: 09/573,740
Filing Date: 5/18/2000
Title: SEROTYPES OF ADENOVIRUS AND USES THEREOF

Attorney Docket No.: 2578-4192.1US
Serial No.: 09/657,492
Filing Date: 9/8/2000
Title: MODIFIED ADENOVIRAL VECTORS FOR USE IN GENE
THERAPY

Attorney Docket No.: 2578-4489US
Serial No.: 09/665,472
Filing Date: 9/20/2000
Title: GENE DELIVERY VECTORS PROVIDED WITH A TISSUE
TROPISM FOR DENDRITIC CELLS

Attorney Docket No.: 2578-4843US
Serial No.: 09/843,894
Filing Date: 4/27/2001
Title: AAV VECTOR PRODUCTION

Attorney Docket No.: 2578-4489.1US

Attorney Docket No.: 2578-3840.1US
Serial No.: 09/900,062
Filing Date: 7/6/2001
Title: PACKAGING SYSTEMS FOR HUMAN RECOMBINANT
ADENOVIRUS TO BE USED IN GENE THERAPY

Attorney Docket No.: 2578-3935.1US
Serial No.: 09/912,552
Filing Date: 7/23/2001
Title: PACKAGING SYSTEMS FOR HUMAN RECOMBINANT
ADENOVIRUS TO BE USED IN
GENE THERAPY

Attorney Docket No.: 2578-3833.5US
Serial No.: 09/918,029
Filing Date: 7/30/2001
Title: PACKAGING SYSTEMS FOR HUMAN RECOMBINANT
ADENOVIRUS TO BE USED IN GENE THERAPY

Attorney Docket No.: 2578-4509.1US
Serial No.: 09/928,262
Filing Date: 8/10/2001
Title: GENE DELIVERY VECTORS WITH CELL TYPE SPECIFICITY
FOR PRIMARY HUMAN CHONDROCYTES

Attorney Docket No.: 2578-4123.1US
Serial No.: 09/953,280
Filing Date: 9/14/2001
Title: CHIMAERIC ADENOVIRUSES

Attorney Docket No.: 2578-5148US
Serial No.: 10/002,750
Filing Date: 11/15/2001
Title: COMPLEMENTING CELL LINES

Attorney Docket No.: 2578-5006.1US
Serial No.: 10/010,645
Filing Date: 11/13/2001
Title: GENE DELIVERY VECTORS WITH CELL TYPE SPECIFICITY
FOR MESENCHYMAL STEM CELLS

Attorney Docket No.: 2578-4489.1US

Attorney Docket No.: 2578-3833.6US
Serial No.: 10/038,271
Filing Date: 10/23/2001
Title: PACKAGING SYSTEMS FOR HUMAN RECOMBINANT
ADENOVIRUS TO BE USED IN GENE THERAPY

Attorney Docket No.: 2578-5226US
Serial No.: 10/040,949
Filing Date: 1/7/2002
Title: INFECTION WITH CHIMAERIC ADENOVIRUSES OF CELLS
NEGATIVE FOR THE ADENOVIRUS SEROTYPE 5 COXSACKI
ADENOVIRUS RECEPTOR (CAR)

Attorney Docket No.: 2578-5233US
Serial No.: 10/042,770
Filing Date: 1/9/2002
Title: GENE THERAPY FOR ENHANCING AND/OR INDUCING
ANGIOGENESIS

Attorney Docket No.: 2578-3833.7US
Serial No.: 10/125,751
Filing Date: 4/18/2002
Title: PACKAGING SYSTEMS FOR HUMAN RECOMBINANT
ADENOVIRUS TO BE USED IN
GENE THERAPY

Attorney Docket No.: 2578-3955.1US
Serial No.: 10/136,139
Filing Date: 5/1/2002
Title: MEANS AND METHODS FOR NUCLEIC ACID DELIVERY
VEHICLE DESIGN AND
NUCLEIC ACID TRANSFER

Attorney Docket No.: 2578-4615.1US
Serial No.: 10/164,085
Filing Date: 6/4/2002
Title: COMPLEMENTING CELL LINES

Attorney Docket No.: 2578-3833.8US
Serial No.: 10/219,414
Filing Date: 8/15/2002
Title: STOCKS OF REPLICATION DEFICIENT ADENOVIRUS

Attorney Docket No.: 2578-4489.1US

Attorney Docket No.: 2578-5233.1US
Serial No.: 10/224,249
Filing Date: 8/19/2002
Title: GENE THERAPY FOR ENHANCING AND/OR INDUCING
ANGIOGENESIS

Attorney Docket No.: 2578-4215.1US
Serial No.: 10/231,735
Filing Date: 8/28/2002
Title: INTERLEUKIN-3 GENE THERAPY FOR CANCER

Attorney Docket No.: 2578-4038.2US
Serial No.: 10/234,007
Filing Date: 9/3/2002
Title: RECOMBINANT PROTEIN PRODUCTION IN A HUMAN CELL

Attorney Docket No.: 2578-4080.1US
Serial No.: 10/235,175
Filing Date: 9/4/2002
Title: TARGETED DELIVERY THROUGH A CATIONIC AMINO ACID
TRANSPORTER

Attorney Docket No.: 2578-4615.2US
Serial No.: 10/272,041
Filing Date: 10/15/2002
Title: COMPLEMENTING CELL LINES

Attorney Docket No.: 2578-5592US
Serial No.: 10/305,435
Filing Date: 11/25/2002
Title: METHODS AND MEANS FOR ENHANCING SKIN
TRANSPLANTATION USING GENE DELIVERY VEHICLES
HAVING TROPISM FOR PRIMARY FIBROBLASTS, AS WELL
AS OTHER USES THEREOF (PRIMAIRE FIBROBLASTEN)

Attorney Docket No.: 2578-5832US
Serial No.: 10/381,088
Filing Date: 3/20/2003
Title: ADENOVIRAL VECTORS PROVIDED WITH A TROPISM FOR
DENDRITIC CELLS

Attorney Docket No.: 2578-4489.1US

Attorney Docket No.: 2578-5904US
Serial No.: 10/381,857
Filing Date: 3/26/2003
Title: ADENOVIRAL VECTORS FOR GENE DELIVERY IN
SKELETAL MUSCLE CELLS OR MYOBLASTS

Attorney Docket No.: 2578-3840.2US
Serial No.: 10/396,548
Filing Date: 3/25/2003
Title: PACKAGING SYSTEMS FOR HUMAN RECOMBINANT
ADENOVIRUS TO BE USED IN GENE THERAPY

Attorney Docket No.: 2578-3833.9US
Serial No.: 10/618,526
Filing Date: 7/11/2003
Title: PACKAGING SYSTEMS FOR HUMAN RECOMBINANT
ADENOVIRUS TO BE USED IN GENE THERAPY

This Information Disclosure Statement is filed before the mailing date of the first Office
Action on the merits.

Respectfully submitted,



Allen C. Turner
Registration No. 33,041
Attorney for Applicants
TRASKBRITT, P.C.
P.O. Box 2550
Salt Lake City, Utah 84110-2550
Telephone: 801-532-1922

Date: April 3, 2003
ACT/jml/bv

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**INFORMATION DISCLOSURE
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Sheet

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of

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Complete if Known

Application Number	To be assigned
Filing Date	August 22, 2003
First Named Inventor	Havenga et al.
Group Art Unit	1636 (presumed)
Examiner Name	Maria Marvich, Ph.D. (presumed)
Attorney Docket Number	2578-4489.1US

U.S. PATENT DOCUMENTS

Examiner Initials *	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number - Kind Code ² (if known)			
		US- 4,487,829	12/11/1984	Sharp et al.	
		US- 4,517,686	05/21/1985	Ruoslahti et al.	
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		US- 5,349,053	09/20/1994	Landolfi	
		US- 5,403,484	04/04/1995	Ladner et al.	

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		Country Code ³ - Number ⁴ - Kind Code ⁵ (if known)				
		259212	03/09/1988	EP		
		2078631	03/19/1990	JP		
		WO 91/00360	01/10/1991	PCT		
		WO 91/05805	05/02/1991	PCT		
		WO 91/05871	05/02/1991	PCT		
		WO 92/02553	02/20/1992	PCT		
		WO 92/13081	08/06/1992	PCT		
		WO 93/03769	03/04/1993	PCT		
		WO 93/06223	04/01/1993	PCT		

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		US- 6,127,525	10/03/2000	Crystal et al.	
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		WO 93/07283	04/15/1993	PCT		
		WO 94/08026	04/14/1994	PCT		
		WO 94/10323	05/11/1994	PCT		
		WO 94/11506	05/26/1994	PCT		
		WO 94/15644	07/21/1994	PCT		
		WO 94/17832	08/14/1994	PCT		
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		WO 95/05201	02/23/1995	PCT		
		WO 95/06745	03/09/1995	PCT		
		WO 95/14785	06/01/1995	PCT		
		WO 95/16037	06/15/1995	PCT		
		WO 95/21259	08/10/1995	PCT		
		WO 95/26412	10/05/1995	PCT		
		WO 95/27071	10/12/1995	PCT		
		WO 95/31187	11/23/1995	PCT		
		WO 95/31566	11/23/1995	PCT		
		WO 96/00790	01/11/1996	PCT		
		WO 96/07739	03/14/1996	PCT		
		WO 96/10087	04/04/1996	PCT		
		WO 96/13597	05/09/1996	PCT		
		WO 96/14837	05/23/1996	PCT		
		WO 96/17073	06/06/1996	PCT		
		WO 96/18740	06/20/1996	PCT		
		WO 96/26281	08/29/1996	Wickham et al.		
		WO 97/00326	01/03/1997	PCT		
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		WO 97/38723	10/23/1997	PCT		
		WO 98/07865	02/26/1998	PCT		
		WO 98/11221	03/19/1998	PCT		
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		WO 02/24730 A2	03/28/2002	Crucell Holland B.V.		

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				Group Art Unit	1636 (presumed)
				Examiner Name	Maria Marvich, Ph.D. (presumed)
Sheet	4	of	9	Attorney Docket Number	2578-4489.1US

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Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		ALBIGES-RIZO et al., "Human Adenovirus Serotype 3 Fiber Protein," Journal of Biological Chemistry, 266(6), 3961-3967 (1991).	
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Examiner Signature		Date Considered	
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				Filing Date	August 22, 2003
				First Named Inventor	Havenga et al.
				Group Art Unit	1636 (presumed)
				Examiner Name	Maria Marvich, Ph.D. (presumed)
Sheet	5	of	9	Attorney Docket Number	2578-4489.1US

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		COTTEN et al., "Transferrin-polycation-mediated introduction of DNA into human leukemic cells: Stimulation by agents that affect the survival of transfected DNA or modulate transferrin receptor levels," Proc. Natl. Acad. Sci. USA, 87, 4033-4037 (1990).	
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		MASTRANGELI et al., "In Vivo Gene Transfer to the Lung of Experimental Animals Using a Chimeric Ad5/Ad7 Adenovirus Vector," Ped. Pulm., Suppl., 12, 230, Abst. No. 180 (1995).	
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STATEMENT BY APPLICANT***(use as many sheets as necessary)*

Sheet

8

of

9

Complete if Known

Application Number	To be assigned
Filing Date	August 22, 2003
First Named Inventor	Havenga et al.
Group Art Unit	1636 (presumed)
Examiner Name	Maria Marvich, Ph.D. (presumed)
Attorney Docket Number	2578-4489.1US

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		NOVELLI et al., "Deletion Analysis of Functional Domains in Baculovirus-Expressed Adenovirus Type 2 Fiber," Virology, 185, 365-376 (1991).	
		ORKIN et al., "Report and Recommendations of the Panel to Assess the NIH Investment in Research on Gene Therapy," (1995), file:///F:/NIHrec.htm 1/4/01 1:37 pm.	
		PETERANDERL et al., "Trimerization of the Heat Shock Transcription Factor by a Triple-Stranded α -Helical Coiled-Coil," Biochemistry, 31, 12272-12276 (1992).	
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		WADELL, G., "Molecular Epidemiology of Human Adenoviruses," Curr. Top. Microbiol. Immunol., 110, 191-220 (1984).	

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		First Named Inventor	Havenga et al.
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		Attorney Docket Number	2578-4489.1US
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		WAGNER et al., "Coupling of adenovirus to transferrin-polylysine/DNA complexes greatly enhances receptor-mediated gene delivery and expression of transfected genes," Proc. Natl. Acad. Sci. USA, 89, 6099-6103 (1992).	
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		WICKHAM et al., "Integrin $\alpha_5\beta_5$ Selectively Promotes Adenovirus Mediated Cell Membrane Permeabilization," Journal of Cell Biology, 127(1), 257-264 (1994).	
		International Search Report, International Application No. PCT/EP01/10999, dated March 26, 2002 (6 pages).	
		PCT International Preliminary Examination Report, PCT/EP01/10999, dated September 23, 2002, 11 pages.	

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